



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/525,202

04/14/2006

Kazuo Onishi

3103-111

7662

66458 7590 09/22/2010  
WATCHSTONE P+D, PLLC  
1250 CONNECTICUT AVENUE, N.W.  
SUITE 700  
WASHINGTON, DC 20036-2657

EXAMINER

BEST, ZACHARY P

ART UNIT

PAPER NUMBER

1795

NOTIFICATION DATE

DELIVERY MODE

09/22/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATENTS@W-PD-A.COM  
JanicePringle@system.foundationip.com  
wpdonline@yahoo.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/525,202	<b>Applicant(s)</b> ONISHI ET AL.	
	<b>Examiner</b> Zachary Best	<b>Art Unit</b> 1795	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 July 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 1-7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

**A LAMINATE OF A SOLID ELECTROLYTE LAYER AND AN ELECTRODE  
LAYER**

Examiner: Z. Best    S.N. 10/525,202    Art Unit: 1795

**DETAILED ACTION**

1.     Applicant's amendment filed July 29, 2010 was received. Claim 8 was amended.

Claims 13-16 were newly added. Claims 8-16 are currently pending examination.

2.     The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Specification***

3.     The objection to the specification is withdrawn because the title was amended.

***Claim Rejections - 35 USC § 112***

4.     The rejections under 35 U.S.C. 112, second paragraph, of Claims 8-12 are withdrawn because Claim 8 was amended.

5.     The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 8-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The deposition of metal near the interface does not form an "electrolyte layer" according to the instant specification. For purposes of compact prosecution examiner reads the deposition of metal as forming an "electrode layer."

***Claim Rejections - 35 USC § 103***

7. Claims 8-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oguro et al. (EP 0943402 A2) in view of Kaneto et al. (US 5,556,700 A).

Regarding Claims 8-10, 13, and 15, Oguro et al. teach a laminate (1) comprising a solid electrolyte layer (2) and an electrode layer (3), which is used an electrochemical actuator (abstract), wherein the thickness of the actuator elements affects the deformation properties of the actuator (par. 89). However, Oguro et al. do not specifically teach the laminate is as thick as 1 cm.

Kaneto et al. teach that polymer actuators can be constructed in various dimensions depending on its desired end use, which may be as thick as 1 cm (col. 5, line 64 – col. 6, line 5). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to adjust the thickness of the actuator element of Oguro et al. because Kaneto et al. teach polymeric actuators can be constructed in various dimensions

depending on its desired end use, which may be as thick as 1 cm and simple substitution of one known element for another to obtain predictable results is obvious. *KSR International Co. v. Teleflex Inc.*, 550 U.S. \_\_\_, 82 USPQ2d 1385 (2007). Additionally, changes in size and shape are obvious. *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984).

Furthermore, it is noted that Claims 8, and depending claims, are product-by-process claims. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed.Cir. 1985). The laminate taught by Oguro et al. in view of Kaneto et al. is obvious to that of Applicant's, and therefore, Applicant's process is not given patentable weight in this claim.

Regarding Claims 11-12, Oguro et al. and Kaneto et al. teach the laminate (actuator element) as recited above. It is the position of the Examiner that the intended use as claimed in Claims 11-12 does not add structure to the claim. Intended use of a known product does not give it patentable weight in the product claim. See MPEP 2106(C).

Regarding Claim 14, Oguro et al. teach the solid electrolyte form has two surfaces opposite each other (fig. 1).

Regarding Claim 16, Oguro et al. teach the solid electrolyte layer is an ion exchange resin layer (abstract).

***Response to Arguments***

8. Applicant's arguments filed July 29, 2010 have been fully considered but they are not persuasive.

*Applicant argues:*

*(a) the structure of the invention is different from the laminate of Oguro et al. in view of Kaneto et al. because the claimed product-by-process claim provides for a large electrode surface area.*

In response to Applicant's arguments:

(a) The difference between the processes of the claimed product-by-process invention and the process of Oguro et al. is that the adsorption/deposition process in the instant specification is constant, whereas the same process of Oguro et al. is cyclic (pars. 54-55). However, it is Examiner's position that there is no patentable difference between the structure produced by the constant process over the cyclic process known in the art.

Applicant cites the improvement of having increased surface area. However, Oguro et al. specifically note that the process of manufacture also produces increased surface area (pars. 55 and 89).

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary Best whose telephone number is (571) 270-3963. The examiner can normally be reached on Monday to Thursday, 7:30 - 5:00 (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dah-Wei Yuan can be reached on (571) 272-1295. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1795

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Zachary Best/  
Examiner, Art Unit 1795

/Dah-Wei D. Yuan/  
Supervisory Patent Examiner, Art Unit 1795